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KAISER
CEMENT & GYPSUM
CORPORATION

PERMANENTE, CALIFORNIA 95014 • TELEPHONE 408/996-4043

March 14, 1975

Department of Environmental Quality
Northwest Region Office
1010 N.E. Couch Street
Portland, Oregon 97232

Attn: Mr. R. E. Gilbert

Re: NPDES Permit 1643-J File 44591
Kaiser Cement & Gypsum Corp., St. Helens (696-283)

Gentlemen:

Following is a progress report submitted pursuant to your request of January 29, 1975 and supplemental to my letter of February 28, 1975. As a matter of background, due to reduced shipments, the plant has been operated four weeks and been down for two since your letter. This has facilitated good progress on system changes, but limited "on-stream" testing time.

The primary clarifier inner and outer overflow baffles were replaced with plastic rings with stainless steel attachment clips and releveled while down this week. This will prevent corrosion holes and short circuiting possible with the former mild steel assembly.

Diversion of deculator condenser cooling water, vacuum pump seal water, and air compressor cooling water from waste treatment to cooling water discharges was completed this week.

Changeover of the chip washer cyclone, decker shower, white water makeup, and Fourdrinier forming machine mat spray-water supplies from river water to secondary clarifier product was also completed this week.

Primary clarifier dye and efficiency tests were conducted in early February, prior to the above changes.

Dye was introduced into the primary clarifier influent; observations showed the influent was radiating outwards in a good circular pattern from the central stilling well.

Primary clarifier efficiency tests showed TSS reduction efficiencies of 67 and 74 percent.

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The phosphate addition rate to the aeration lagoon influent was increased from 16 to 60 pounds per day as of January 21. Tests for nitrogen and phosphorous in the effluent sampled prior to the increase are attached. Further tests will be conducted and submitted after sixty days operation at the increased rate.

The results of the aerated lagoon sludge deposit survey are attached.

Our sludge handling and disposal systems are as follows:

- A. Primary clarifier sludge is returned to the process via the Decker - dewatering screen.
- B. Aeration lagoon sludge is pumped to the sludge holding pond from which it is trucked and spread out over pasture land. It is planned to do similar work again this summer when the sludge can be disposed of without causing leaching or run off problems.
- C. Secondary clarifier sludge is returned to the process at the feed end of the Fourdrinier forming machine. In your letter of January 29, concern was expressed that much of this sludge might recycle back to the waste treatment system. As indicated in our meeting of February 14, this sludge is reintroduced just prior to formation of the fiber mat on the forming machine. We believe that the fiber mat constitutes as good a filter as might be found for retention of this finer sludge. Laboratory filter tests appear to support this view. The quantity involved amounts to 0.3% by weight of product at present, and potentially just under 1% if total recycling is achieved. Hopefully, this would be too small a fraction to pose a waste treatment or product contamination problem.

Supplemental to my letter of February 28, attached is a more detailed description of plant sampling and analysis procedures.

Kindly let me know if you desire any further information.

Very truly yours,


R. H. Berby

cc: W. D. Hopper
E. H. Schaper
M. Slavich
I. M. Watson